

## **ABSTRACT**

The present invention relates to improved methods and reagents for the production of 1,3-propanediol. In particular, the present invention provides novel thermophilic organisms and thermostable enzymes capable of catalyzing the fermentation of glycerol to 1,3-propanediol. The present invention also relates to methods of isolating such thermophilic organisms, methods of cloning polynucleotides that encode such enzymes, polynucleotides encoding such enzymes, and methods of using such enzymes and organisms for the production of 1,3-propanediol.

108101-0630-101